B6200-2

World Financial Markets

Morgan Guaranty Trust Company of New York

October, 1979

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*index, March 1973=100**

*Latest plotting October 23

In quest of international monetary stability

Inflationary pressures, rising inflationary expectations, and speculation in financial, foreign exchange, and commodity markets have provoked a vigorous response from the United States. On October 6 the Federal Reserve announced a series of measures that included a full percentage point hike in the discount rate to a record 12%, an unprecedented 8% marginal reserve requirement on increases in managed liabilities, and a change in the Federal Reserve's operating procedures for controlling growth in the money supply that places greater emphasis on the supply of bank reserves and less emphasis on the level of the Federal funds rate. Shortly thereafter, on October 16, the U.S. Treasury Department announced that it would no longer hold gold auctions on a regular basis and would vary the amount of gold to be sold in the auctions in order to deter speculation.

The Federal Reserve actions, which were approved by all seven members of the Federal Reserve Board, received strong support from the banking and business communities, Congress, and the Secretary of the Treasury. Even several critics of recent U.S. monetary policy, including Senator William Proxmire and Congressman Henry Reuss, endorsed the latest measures.

The foreign exchange markets also responded positively to the Federal Reserve's actions. Shortly after the announcement of the measures the dollar rebounded to around the DM 1.80 level, after having reached a low of DM 1.73 in late September and early October. The yen, which had been weakening on its own, fell from the 220 yen per dollar level in early October to a low of about 235 yen toward the end of the month. Since October 5 the dollar has appreciated by about 2¾% against the mark and other EMS currencies, while climbing about 5½% *vis-à-vis* the Swiss franc and 5% against the Japanese yen (see Table 1). At the same time, the dollar has risen about 2% against the Canadian dollar and more than 3% against the British pound. On a trade-weighted basis, the dollar's level as of October 23 was up about 3% from its level on October 5 and slightly above the former 1979 peak reached in June (see chart). Meanwhile, in the commodity markets the price of gold, which reached a record level of about $450 in September, fell under the $400 level in mid-October.

The emphasis of the latest Fed-

Table 1

Exchange rates for the dollar vis-à-vis selected currencies

in foreign currency units per dollar, except Canadian dollar and British pound

	Oct. 5, 1979	Oct. 23, 1979
Canadian dollar	$ 0.86	$ 0.84
Japanese yen	223.80	235.50
British pound	$ 2.18	$ 2.11
German mark	1.76	1.81
French franc	4.13	4.24
Italian lira	816.35	831.95
Belgian franc	28.50	29.05
Dutch guilder	1.95	2.00
Swiss franc	1.58	1.67
*Effective dollar exchange rate**	97.30	100.20

*March 1973=100

eral Reserve measures differs significantly from the November 1 actions a year ago. At that time the dollar was under pressure against virtually all of the major currencies, and the combined Federal Reserve-Treasury actions were geared toward restoring exchange rate stability. The November 1 measures featured a $30 billion currency support package and a renewed commitment on the part of the United States to intervene in the foreign exchange markets to support the dollar. In comparison, the latest Federal Reserve actions have been directed at dampening both inflationary pressures and rising inflationary expectations within the United States by improving the Federal Reserve's ability to control the rate of expansion of money and credit. To the extent that these objectives are achieved, the measures should also benefit the dollar and help to curb speculation in commodity markets.

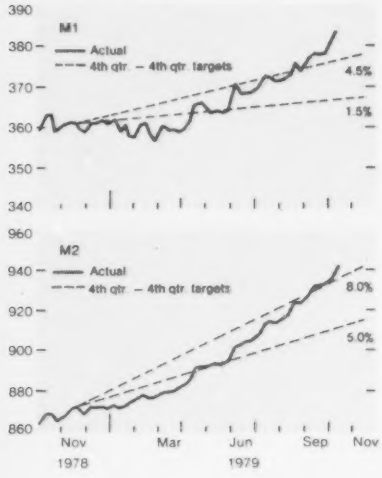
The latest Federal Reserve actions occurred against a background of less than expected weakness in the domestic economy. Whereas real GNP declined by 2.3% at an annual rate in the second quarter of this year, it advanced at a 2.4% rate in the last three months, fully offsetting the second quarter decline. There has been considerable evidence of the partial rebound in economic activity in recent months. Industrial production rose by five-tenths of one percent in September — the largest increase since last May — after a decline of almost one percent in August. Similarly, the unemployment rate, which had climbed to 6% in August, declined to 5.8% in September. Housing starts rose by 4.2% in September. Contrary to many forecasts, the pattern of U.S. economic activity thus far has not been that of a typical U.S. recession.

Consumer and wholesale prices continued to rise at more than 13% annual rates during the latest three months. During September, the finished goods component of the wholesale price index surged at an 18% annual rate — the most rapid monthly increase in five years. At the same time, the money supply and bank credit continued to grow at rates that were inconsistent with the achievement of longer-term targets. M1 increased at a seasonally-adjusted annual rate of 10% in the latest three months, while M2 rose at a 12% annual rate. Bank credit has expanded even faster, at a 14% annual rate in the latest three months.

While there was no general dollar crisis, the dollar, nonetheless, was weak against the German mark despite substantial improvement in the U.S. current account position and a deterioration in Germany's current account. During September heavy central bank intervention, estimated to be on the order of $4-$5 billion, was required to support the dollar. The vast majority of these dollar purchases were conducted by the Federal Reserve. Consequently, by the latter part of September virtually all of the proceeds of the $3 billion in Carter bond sales in Germany were exhausted, as well as a substantial portion of the Federal Reserve's $6 billion swap line with the Bundesbank. When the German authorities were approached about the possibility of augmenting resources for intervention, they reportedly pointed out the difficulties that continued heavy exchange market intervention would pose for controlling German money supply expansion and evidently stressed that provision of additional resources should be preceeded by more fundamental steps. The discussions apparently ended with agreement by the German and U.S. authorities that continued heavy central bank intervention alone was not the answer to

Money supply growth and target ranges

in billions of dollars



the dollar-mark problem. Instead, more fundamental action to curb inflationary pressures in the United States was needed to arrest the dollar's decline against the mark and to curb speculation in gold and other commodity markets.

This point was very much stressed by M. Jacques de Larosière, Managing Director of the IMF, at the IMF/World Bank meetings in Belgrade. In his opening remarks M. de Larosière focused attention on the need to reduce inflation in the industrial countries as a necessary condition for restoring international monetary stability. He emphasized that any anti-inflationary strategy must include two lines of attack: one to deal with demand management, and the other to deal with the various structural factors contributing to inflation. On the issue of demand management, he noted that the policy of "gradualism," which was widely agreed on by the industrial countries a few years ago, has failed to bring about a reduction of inflationary expectations: "Greater decisiveness and firmness will need to be exercised in the conduct of monetary policy, and the change will have to be supported by fiscal policy. The fundamental aim must be to achieve credibility of fiscal and monetary policies so as to roll back inflationary expectations and restore confidence."

The measures adopted by the Federal Reserve on October 6 are very much along the lines suggested by M. de Larosière. They are directed at one important underlying cause of international monetary instability — namely, the problem of high and accelerating U.S. inflation. To be sure, they appear to signal a departure from the previous U.S. policy of gradualism, and there is reason to expect the stance of U.S. monetary policy to remain firm in the immediate future. Nevertheless, it should be recognized that there are many other sources of instability — such as potential oil price developments, ongoing reserve diversification, and the inability of the IMF to play a larger role in the balance-of-payments adjustments process — that also need to be dealt with in the near future in order to foster an environment for world monetary stability.

The Federal Reserve measures and their implications

A stated objective of the Federal Reserve actions is to assure better control over the expansion of money and bank credit, which in recent months have been growing above the upper end of the long-run target ranges (see chart). Instead of setting new monetary targets, the Fed announced on October 6 that it was altering procedures that it has used to attain its money-supply targets. For about ten years now, the Fed has tried to regulate the growth of the money supply by pegging the Fed funds rate at a level believed to be consistent with the desired pace of monetary expansion, and then supplying whatever volume of reserves was required to keep the funds rate at that level. This operating procedure, however, has been criticized on grounds that it provided too many bank reserves in expansionary periods, as the Federal Reserve resisted upward pressures on interest rates, and too few reserves in recessions, when the Fed moderated pressures for interest rates to fall.

The Federal Reserve now proposes to estimate the volume of reserves that is consistent with the money-supply targets and to supply that amount of reserves, letting market forces determine the Federal funds rate. As a result of this change, much greater variability in the funds rate is anticipated, although the au-

thorities probably still have at least some broad limits in mind. The funds rate, indeed, fluctuated widely in the first few days following the October 6 announcement. Subsequently, after centering around 13%-14% in mid-October, the Fed funds rate rose to 18% compared with a level between 11⅝%-11¾% prior to October 6. While the Federal Reserve is still working out the exact procedures it will use in aiming for its money-supply targets, it is expected that it will try to limit the volume of non-borrowed reserves whenever it wishes to tighten credit. This action may force commercial banks to resort increasingly to the discount window, at least in the short run. Policy signals to the market, therefore, will be reflected in the level of non-borrowed reserves that is supplied and in trends in member bank borrowing at the discount window. In this regard, the decision to raise the discount rate from 11% to 12% may be more than a symbolic gesture. In fact, the Fed is likely to resort to discount rate changes more frequently than in the past in order to influence the volume of borrowed reserves.

The 8% marginal reserve requirement on increases in the aggregate of managed liabilities above a base amount for each bank is also designed to improve control over the volume of bank reserves, as well as to convince market participants of the Federal Reserve's determination to reduce the availability of bank credit. Increases in these managed liabilities (large-denomination time deposits with maturities of less than a year, net Euro-dollar borrowings, and Federal funds borrowings and repurchase agreements against U.S. government and Federal agency securities with nonmember institutions) funded about half of the increase in bank credit during the last three months. The new marginal reserve requirement boosts the effective cost to banks of raising additional funds through increases in the total of their managed liabilities above the base by more than 150 basis points at current interest rate levels. To the extent that banks' managed liabilities exceed their base level, the additional reserves they are required to hold will further curb liquidity and push up interest rates in the absence of offsetting open market operations. In the case of large, 30-179-day CDs, for example, the new marginal reserve requirement raises the total reserve requirement ratio to 16%.

Several aspects of the new marginal reserve requirements merit special attention. This marks the first time that the Fed has imposed mandatory reserve requirements on the U.S. agencies and branches of foreign banks. Under the International Banking Act of 1978 the Fed was given the authority to impose reserve requirements on the agencies and branches, similar to those imposed on member banks, and had already issued proposed regulations to that effect. While the Federal Reserve is still awaiting comments before implementing the proposed regulations, it has gone ahead with the marginal reserve requirements. The U.S. agencies and branches of foreign banks have increased their total assets from less than $32 billion at the end of 1973 to more than $113 billion in July 1979. Their commercial and industrial loans have grown from $11 billion to more than $33 billion during this period, and currently account for about 12% of the total of such loans by all commercial banks in the United States. Thus, they have become important sources of business credit. They also have relied very heavily on increases in managed liabilities to finance their loan expansion.

The new reserves, nonetheless, put U.S.-based banks at a competitive disadvantage. Credits extended

Table 2

Selected 3-month interest rates[a]

percent per annum

	1978 end Oct.	*1979*	
		Oct. 5	*Oct. 23*
United States	10.37	12.60	14.95
Japan	4.25	6.69	6.78
Germany	3.85	8.30	8.95
France	7.25	12.00	12.37
United Kingdom	11.06	13.94	14.25
Switzerland	0.50	1.62	2.87
Canada	10.05	12.05	13.10

a 3-month interbank deposit rates except for the United States and Canada (3-month CD rates) and Japan (3-month repurchase agreement)

to U.S. residents by the foreign branches of U.S. banks are subject to the 8% marginal reserve. However, foreign banks' loans made directly to U.S. residents from abroad are not subject to the reserves, giving these banks a decided competitive advantage. At the end of March 1979 such loans by these banks to nonbank U.S. residents amounted to less than $5 billion, but presumably they could expand rapidly. To lessen this potential inequity, the Chairman of the Federal Reserve Board has told the U.S. agencies and branches of foreign banks that credits to U.S. residents normally extended by them should not instead be booked by their affiliates outside the United States and that, in general, lending to U.S. residents by their overseas affiliates should not depart from normal patterns. Thus, the Federal Reserve has indicated to foreign banks that it does not expect them to circumvent the program by making loans to the United States from abroad.

Turning to the economic implications of the measures, it is clear that they have had an important effect on financial markets, with interest rates on virtually all credit instruments rising substantially. Following the Federal Reserve announcement, the commercial bank prime lending rate rose to 14½%, and then to 15% in late October, up by 1½ percentage points since October 5, while rates on three-month CDs increased by about 225 basis points to almost 15%. Similarly, three-month rates on Euro-dollar deposits rose by about 225 basis points to about 15½%, while rates on three-month commercial paper were up about 175 basis points to 14%. Yields on long-term bonds also increased considerably, although by a smaller amount than at the short end of the spectrum. Yields for long-term triple-A corporate bonds and for ten-year government bonds, for example, were up by about 135 basis points.

As a result of these developments dollar-denominated assets are now yielding a positive real rate of return for the first time in a long while. Rates on short-term money market instruments, for example, presently are about 1% above the current rate of U.S. consumer price inflation. Moreover, they have become more attractive relative to assets denominated in foreign currencies as a result of a further widening of interest-rate differentials in favor of the dollar (see Table 2).

Nevertheless, while these measures clearly are an important first step, they cannot, in themselves, assure that the objectives of slower growth of the money supply and credit will be met, particularly if the Federal Reserve does not limit the volume of bank reserves that it supplies. For example, U.S. commercial banks, by altering their asset mix, have still some scope for increasing their domestic lending without having to increase their managed liabilities above their base levels. Even to the extent that the new marginal reserve requirements begin to bite seriously and contribute to slowing the expansion of domestic bank credit, there are several potential channels that may permit further growth in credit. Despite Chairman Volcker's admonitions, foreign banks could increase their direct lending to U.S. residents. Indeed, there have already been several reports that some foreign banks have been aggressively offering to make loans from their overseas offices to U.S. residents. Furthermore, foreign subsidiaries of U.S. companies could approach banks overseas, including the foreign branches of U.S. banks, for credit and then could relend the funds to their U.S. parent companies. In this way, domestic borrowers could avoid the cost effects of marginal reserve requirements. The in-

crease in domestic banks' funding costs resulting from the marginal reserve requirement also will widen the interest-rate differential between domestic bank credit and domestic nonbank credit channels, such as the commercial paper market, further encouraging business credit to flow around rather than through domestic banks. Nevertheless, the effects of the Federal Reserve's credit tightening will eventually spread through all credit markets, including the Euro-dollar market, in the form of generally higher interest rates.

Under these circumstances commercial banks and other lenders can be expected to become even more conscious of individual credit risks than in the past. Their willingness to extend new credits will hinge on their perceptions of the added risks, as well as on their ability to pass along added funding costs. Similarly, businesses can be expected to postpone investment decisions and take a more cautious stance on inventories given the increased cost of borrowing, the uncertainty about the future availability of credit, and the prospect of greater weakness in the economy. In the mortgage market, moreover, higher interest rates, as well as the effect of usury laws in many states, are likely to curtail housing activity. Each of these factors should have the effect of dampening economic activity, thereby moderating inflationary pressures.

The Federal Reserve's actions, however, cannot be expected to turn U.S. inflation around overnight, given the built-in forces that have been at work in recent years. Rather, at this juncture, it is essential that public confidence in the U.S. resolve to fight inflation be restored, to avoid imbedding the current rate of inflation in expectations and in wage settlements before price increases begin to subside. Thus far, hourly wage increases in the United States have not accelerated, having averaged slightly less than 8% in the last two years. But wage earners can be expected to try to recoup some of their lost purchasing power, especially if inflationary expectations are not lowered. A strong commitment on the part of the U.S. government to fight inflation, therefore, is vital to maintaining wage restraint.

It is necessary for the Federal Reserve to follow through on its October 6 measures by limiting the volume of bank reserves that it supplies, which could very well imply even higher interest rates in the near term. It is equally important for the actions on the monetary front to be buttressed by a policy of fiscal restraint that, at the same time, fosters an environment for a sustained increase in productive capacity. Considerable progress has been made on the fiscal front this year, with the budget deficit down to a $9 billion annual rate in the first half of the year, but a substantial deterioration could occur next year, especially if a sizable tax cut is enacted. At present there appears to be widespread agreement on the part of the Administration, Congress, and the Federal Reserve that an anti-recession tax cut is premature. Moreover, no new major spending programs to stimulate the economy are now being contemplated. Furthermore, should the time come when a tax cut seems appropriate, it is generally recognized that it should be structured to help stimulate investment and cut costs and should be accompanied by continued spending restraint.

The need to restore order in oil markets

While the United States is taking steps to reinforce its anti-inflation-

ary policies, a major new threat to international monetary stability is emerging from the current disorderly oil price situation. After a relatively calm third quarter, the world oil price structure was upset in early October by increases in the official prices of Mexico, Kuwait, Libya, Iran, and Iraq, and by the announcement that BNOC (the British National Oil Corporation) has requested "premiums" above world market prices on its forward sales based on the greater security of British oil and the high spot prices. Although Mexico is not an OPEC member, its price increase by $2 to a level of $24.60 per barrel effectively broke the OPEC ceiling of $23.50. Kuwait's 10% increase to $21.43 kept the price below the OPEC ceiling, but it brought the quality differentials among the various OPEC crudes even more out of line with each other. These actions set the stage for the subsequent price rises by Libya, Iran, and Iraq of 12%, 7%-14%, and up to 10%, respectively. Further increases by Nigeria and Algeria to match that of Libya and by other Persian Gulf producers to match those of Kuwait, Iran, and Iraq are now likely.

The new round of increases in official prices has been influenced to a large extent by the strength of spot prices. In recent months spot prices have remained at 50% or more above official levels, in spite of an improvement in the world oil supply situation relative to that of early 1979. Continued uncertainty about the political situation in Iran and fears of oil production cutbacks next year by Saudi Arabia, Kuwait, and other OPEC members, have helped maintain demand for stockbuilding and hence demand for oil imports. In addition, curtailment in the volume of oil sold by OPEC members to the international oil companies, their traditional customers, has increased the number of oil buyers in the spot market. Spot transactions are now estimated to account for 10%-12% of total oil traded internationally.

In view of this, stocks have continued to rise. Although data are incomplete, estimates place world oil stocks in early October at more than 75 days of oil consumption, compared with less than 68 days in the spring of this year. Indeed, as early as end-June 1979, OECD data indicate that middle distillate stocks (the bulk of which is used for residential heating) in major industrial countries, except the United States, were at or above the levels of a year ago. Even in the United States, where the heaviest stock drawdown took place in early 1979, these stocks by mid-October had reached the Administration's goal of 240 million barrels, a level 12% above that of a year ago. Crude and gasoline stocks as of that date were also up by 2%.

The heavy buying for stockbuilding purposes has more than offset the slowing in oil consumption and has put pressure on oil supplies, even though they are higher than a year ago. According to OECD, the year-over-year increase in oil consumption in seven major industrial countries (United States, Japan, Germany, France, Italy, the United Kingdom, and the Netherlands) was only 0.1% in the second quarter of 1979 compared with 1.1% in the first quarter of 1979 and 3.5% in the fourth quarter of 1978. Preliminary data indicate that third-quarter aggregate oil consumption in these countries actually may have declined relative to a year ago. In the United States, the world's largest oil consumer, consumption in the first half of 1979 was down 1.1% from a year ago, and the decline appears to have continued in the third quarter of 1979.

In terms of oil production, during the first eight months of this year

Table 3

Nominal and real oil prices

period averages as index numbers, 1974 = 100

		Nominal oil prices[a]	*OPEC import prices*[b]	*Real oil prices*[c]
1970-72		19	66	28
1973		31	84	37
1974		100	100	100
1975		98	111	89
1976		106	113	94
1977		114	124	92
1978		117	144	81
1979	*QI*	125	155	81
	QII	153	156	98
	QIII	185	163	114
	mid-October	193	166	116

a official sales price of OPEC "marker crude" in U.S. dollars through 1978; weighted average of all OPEC official oil prices thereafter, including surcharges.

b wholesale prices of nonfood manufactures in industrial countries expressed in U.S. dollar terms and weighted by these countries' share in OPEC imports

c ratio of nominal oil prices to OPEC import prices

OPEC output was 5.1% *above* that of 1978. By August it had reached 31.5 million bpd, compared with 29.2 million bpd in the first quarter of 1979. Mexican and North Sea production have also steadily risen, averaging 3.3 million bpd in the first half of 1979, 700,000 bpd more than a year earlier. Part of this increase has been offset by the 150,000 bpd decline in U.S. output.

Therefore, while the present levels of oil consumption and production could have been expected to lead to a relatively stable oil market and pricing situation, prices have, nevertheless, continued to rise because of fears and uncertainty about the future. The recent increases in *official* sales prices have brought the weighted average OPEC price to $21.50 per barrel, compared with $20.60 in September and $17.80 in June. This mid-October 1979 price is 66% above that of a year ago, an increase in absolute terms similar to that of 1973/74. During the same twelve month period, by contrast, the rate of inflation in major industrial countries has been 11% (measured on the basis of wholesale prices of nonfood manufactures in twelve industrial countries). However, in the wake of the November 1978 measures, the dollar has strengthened during the same period by 3.8% (measured on an OPEC import-weighted basis), so that the increase in OPEC import prices in dollar terms is less than 7%. Thus, adjusting for both these inflation and exchange rate changes, the nominal oil price rise so far in 1979 translates to one of almost 55% in real terms. This year's real increase has more than offset the decline of the preceding four years, so that oil prices in real terms are now some 16% above their 1974 average (see Table 3). In view of the rising volume of spot transactions in recent months, average oil prices are even higher than that.

In the event that the present disorder in oil markets and the price leapfrogging continue unchecked, it is not impossible to conceive that the average oil price could reach $25 per barrel by early next year. If that were to happen, the average oil price for 1979 as a whole would be up 45% from last year, and that for 1980 would be up some 30% to 35%. Even without any further adjustments during the course of 1980, this would imply a doubling of nominal oil prices in two years and a real increase of almost 60%. Under these circumstances, the 1980 OPEC surplus *before* official transfers could approach $70 billion, compared with $55 billion this year, and only $7 billion in 1978. Further upward adjustments during the course of 1980, to an average oil price of $30 per barrel by year-end, could push the OPEC surplus before official transfers to nearly $80 billion in that year.

The implications of these not entirely inconceivable events for the oil-importing countries would be even higher rates of inflation and slower rates of economic growth than currently projected and a further sharp deterioration of their combined current account deficit. For the industrial countries, the absence of a slackening in the rate of annual oil price increases will mean little or no reduction in the oil-price component of their inflation, making it more difficult to bring about a decline in the overall rate of inflation. Furthermore, the rate of economic growth, now forecast for industrial countries at about 1% for 1980, may dwindle to zero or become negative. This bleak economic outlook could tilt the present anti-inflationary stance of economic policy in industrial countries toward maintaining economic growth and preventing a steep rise in unemployment. For the United States, oil price rises to the $25-$30 level would most likely pre-

vent the 1980 current account balance from moving into surplus.

The impact of new, sharp oil price rises will be even more serious for the developing countries. They will be adversely affected both by the increase in oil prices and by the higher inflation and reduced economic growth rates in industrial countries, their major trading partners. As a result, the combined current account deficit of the non-OPEC LDCs, which is now expected to deteriorate from about $30 billion in 1978 to well beyond $40 billion this year and more than $50 billion in 1980, would worsen significantly, thereby increasing the likelihood of external financial difficulties for some of these countries.

With oil inventories restored to more adequate levels and with oil consumption leveling out or declining in response to higher prices and slower economic activity, it would seem possible to restore some order and regularity to the oil pricing situation. Nevertheless, while the current situation does not seem to be hopeless, there is a real danger that if the present leapfrogging continues unchecked, a new and potentially much more serious oil crisis may develop. Therefore, new international initiatives may well be required to ensure that any real oil price rises take place in an orderly fashion.

Among the actions that could be taken are stronger measures by oil-importing governments to reduce oil demand. At the Tokyo summit, although much-needed targets were set to limit 1985 oil imports, little was done to significantly affect the immediate situation. In particular, the objectives for 1979 and 1980 were rather vague and entailed few sacrifices. Another area requiring immediate action is the spot market. Measures by both the oil-importing and oil-exporting governments to restrain participation in the spot market and to reduce its influence would be helpful. Furthermore, efforts to reduce expectations about future oil supply interruptions are needed. Co-ordinated efforts by oil-importing and oil-exporting governments to explore ways that will help maintain reasonable oil production levels are desirable. In this regard it may also be useful if Saudi Arabia's suggestions at the recent IMF/World Bank meetings for a dialogue between oil-producing and oil-consuming countries on international energy policy issues and the transfer of technology, and for more lending by the IMF to developing countries, were seriously pursued.

The need for off-market diversification facilities

The prospect of much larger OPEC surpluses makes all the more urgent the quest for mechanisms to ensure that the investment of those surpluses is channeled in orderly fashion without unnecessary disruption of exchange markets. At present, official foreign exchange holdings of all countries except the Group of Ten (G-10) and Switzerland total approximately $250 billion, of which OPEC members hold some $150 billion. By the end of 1980 OPEC official holdings could approach $230 billion, of which Saudi Arabia may account for $90 billion and Kuwait $40 billion. The portfolio management of these official international assets has serious implications for exchange market stability because of the magnitudes involved and the effects of actual and rumored official portfolio diversification on private market participants.

Official asset holders outside the G-10 industrial countries cannot realistically be expected to arrange their portfolios to the convenience of industrial nations. The main ar-

guments for diversification from dollars into other currencies and from short-term money assets into longer-term financial assets are the desire for stability of returns in relation to the multi-currency patterns of imports and debt obligations, and the desire for higher average returns than dollar holdings have provided in recent years relative to the performance of alternative assets. Oil-producing countries, exporting a product whose price is widely assumed to be on an indefinite uptrend in real terms, are not encouraged to supply more oil if the financial proceeds offer only negative returns after inflation. Therefore, it is important for the United States to maintain positive real interest rates on dollar assets, a monetary stance consistent also with fighting domestic inflation.

Nonetheless, even with the firmest U.S. policies, the major central banks must face up to the probability of diversification pressures on the part of asset-holders seeking portfolio balance. Reliance on moral suasion and attempted prohibitions are an inadequate response to an urgent problem. Indeed a main reason why some $150 billion of official assets are held in the Euro-markets has been the negative attitude of many G-10 central banks toward reserve-currency responsibilities. A change of heart on this matter by the G-10 countries could be the most effective way of curtailing growth of the Euro-markets through removing a principal source of funds — and is certainly more promising and practical than the imposition of reserve requirements on Euro-activity.

The substitution account proposal developed in the IMF constitutes one approach to the challenge of diversification. The proposal would allow central banks to exchange dollar assets for SDR-denominated claims on a special account, thereby offering an alternative asset to the dollar for reserve holdings with the hope of deflecting outright diversification of reserves into other currencies. As discussed in September's *World Financial Markets*, the substitution plan's SDR offers no sure advantage over the dollar in terms of capital value and interest yield. The plan's appeal lies mostly to G-10 central banks who have no practical alternative to the dollar for their reserve holdings at present, but it offers limited attraction to other countries who are less inhibited about diversifying through private channels. Moreover, there is something fundamentally deficient in seeking to cope with a diversity of interests among potential diversifiers by offering only a single asset alternative such as the SDR. While many countries may eventually participate, at least in a token way, the substitution account offers no promise for dealing adequately and in a timely manner with the diversification issue.

A more promising direction for intergovernmental endeavor would be to channel diversification investments into the desired currencies in an orderly fashion. This would imply a need for governments and central banks of G-10 members to provide the instruments denominated in their own currencies — marks, yen, Swiss francs, guilders, sterling and so on — that diversifiers legitimately seek. This should be done by off-market techniques. Close cooperation among the central banks, perhaps most naturally in the Basle framework, would be important in working out specific coordinated procedures. For example, the German authorities could take dollar deposits in return for mark-denominated liabilities bearing interest at prevailing Euro-DM rates, repayable at Germany's choice in marks or in dollars with changes in capital value in dollar terms

as implied by developments in the mark-dollar exchange rate. The dollar deposits would be reinvested by Germany in U.S. obligations just as with Germany's other reserve holdings. Other G-10 central banks would offer parallel facilities in their own currencies.

In contrast to the IMF substitution proposal, an array of offerings by the major central banks has the important advantage of flexibility, involving no dependence on a technical formula of doubtful attractiveness to diversifiers. Of course, some would object that this approach would increase world reserves and liquidity. The increase is mainly the result of double counting, and there could even be a useful tightening of liquidity as central bank deposits are withdrawn from the Euro-market. Furthermore, the increased dollar reserves accruing to the central banks offering the special paper would entail an exchange risk to them. However, it needs to be recognized that no real solution to the diversification problem can protect the major countries from the exchange valuation risks of their own policies. Assumption of those exchange risks by the central banks — shared in some manner by the United States — is the necessary price for orderly containment of the otherwise destabilizing impact of diversification on exchange markets.

The need to enlarge the IMF's role

Given the magnitude of the current account deficits faced by non-OPEC LDCs and the need for some of these countries to take corrective measures in order to avoid potentially serious financial difficulties, it is important for the Fund to play a much larger role than it did in 1974-75 or has in more recent years in providing balance-of-payments financing and in promoting adjustment.

The IMF now has sizable resources available for lending to member countries. At the end of August 1979, the Fund's holdings of "usable currencies" and SDRs plus its unused lines of credit under the General Arrangements to Borrow and the Supplementary Financing Facility totaled approximately $30 billion. The Fund's resources will be increased when the 50% increase in quotas proposed under the Seventh General Review of Quotas becomes effective, probably next year. The non-OPEC LDCs have a maximum cumulative borrowing potential of about $47 billion under the Fund's major facilities (credit tranches, extended facility, supplementary financing facility, and compensatory financing facility). For individual countries experiencing difficult adjustment problems, Fund assistance is now available in larger amounts and for a longer period than was the case in 1974-75.

Non-OPEC LDCs' use of these Fund facilities has been very limited. These countries' net use of Fund credit (excluding repayment of previous Oil Facility drawings) increased by only about $700 million in 1977-78, and by less than $450 million in the first eight months of 1979. Their outstanding use of Fund credit as of end-August 1979 amounted to only about $4.7 billion, not including $1.9 billion still outstanding under the 1974-75 Oil Facility and $1.5 billion under the Trust Fund. Moreover, only a relatively small proportion of non-OPEC LDCs' outstanding use of Fund credit — less than $1 billion — entails conditionality, i.e., drawings on the higher credit tranches and the extended facility. The bulk of their use of Fund credit consists of the first credit tranche and the compensatory facility. Thus, most non-OPEC LDCs clearly have been reluctant to submit to Fund conditionality even though the potential

amounts of credit available to individual members are now quite substantial and even though the charges for Fund facilities are generally well below private market rates. For example, the charges for drawings under credit tranches and extended facility range from 4⅞% to 6⅞%, depending on the maturity of the drawing. Instead, these countries have continued to rely on banks and other private market sources of funds for balance-of-payments financing.

The Fund earlier this year completed a review of the conditionality attached to the use of credit tranches and established new guidelines that, in effect, provide for somewhat greater flexibility in the setting of performance criteria and for increased sensitivity to countries' economic priorities and domestic social and political objectives. The Fund, in its periodic consultations with members, is also directed to intensify efforts to encourage members to adopt necessary corrective measures with the support of Fund resources at an early stage of balance-of-payments difficulties. As yet, there is little evidence that these new guidelines have had much effect in terms of increasing the use of the Fund's conditional credit.

What steps could be taken to increase the use of Fund resources by the developing countries? One direction would be to increase the proportion of Fund resources available on reduced or minimal conditionality. Indeed, the Fund recently liberalized the compensatory financing facility by broadening its scope to include certain services, as well as goods, exports in the calculation of temporary export shortfalls, and by increasing the amounts available under the facility from 75% to 100% of members' quotas. Proposals have been made for still further liberalization of this facility and for increasing the proportion of Fund resources available on first credit tranche conditions. Increasing the availability of largely unconditional credit from the IMF probably would lead to increased use of Fund resources and would increase the extent of official international risk sharing in the provision of balance-of-payments financing. However, because of the limited degree of conditionality involved, this use of Fund resources might not go very far in promoting needed adjustment. Nevertheless, use of the first credit tranche at least requires that the country present a program representing reasonable efforts to overcome its balance-of-payments difficulties, while drawing on the compensatory facility necessitates that a member be willing to cooperate with the Fund in finding appropriate solutions to its balance-of-payments problems. These are very modest conditions, but they at least get the Fund involved and are better than nothing at all.

Another proposal for inducing countries with payments difficulties to increase their use of Fund credit is to lower the cost of Fund credit, but this is unlikely to have much impact. As noted earlier, Fund charges for most of its facilities are already well below the cost of bank credit, and it is unlikely that a further widening of the cost differential would induce many countries to submit to Fund conditionality.

Yet another approach to getting non-OPEC LDCs to make greater use of IMF resources could involve efforts by the Fund to influence the availability of balance-of-payments financing from the private markets via a broader dissemination of its views and appraisals of countries' external payments situations and policies. However, there appear to be major institutional, if not legal, obstacles to this kind of public disclosure, including the Fund's insis-

tence that the absence of confidentiality would significantly impede IMF consultations with member countries.

Measures to reduce the liquidity of private financial markets generally may be the best way to compel countries with balance-of-payments problems to consider use of Fund resources sooner rather than later. The tightening of monetary policies by the Federal Reserve and by authorities in a number of other major industrial countries in order to curb inflation will tend to increase the cost and reduce the availability of bank credit. Liquidity in the Euro-currency market could also be tightened by steps to limit additions to central bank deposits in the market or to bring about withdrawals of existing official deposits. The central banks of the Group of Ten countries already have agreed not to increase their deposits in the Euro market. This agreement could be broadened to include more countries in conjunction with an attractive off-market facility for reserve diversification discussed above. Such steps to tighten market liquidity could lessen the availability of balance-of-payments financing from banks and other private market lenders, and thereby engender increased use of Fund resources.

Statistical appendix

for key to data in tables
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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1978																
October	95.4	82.7	136.8	67.8	134.4	90.3	56.0	111.5	118.5	179.4	116.5	102.2	103.8	87.2	74.1	72.5
November	97.2	83.9	132.5	68.1	133.8	90.0	55.7	111.4	118.7	169.6	116.5	102.3	103.7	88.0	74.5	73.3
December	97.5	83.4	129.6	68.8	135.0	90.3	55.2	111.2	119.2	168.3	116.9	102.0	102.4	87.4	74.5	73.0
1979																
January	97.5	82.6	127.9	68.8	135.5	90.8	55.0	111.8	120.0	166.7	117.4	103.2	102.2	87.0	74.3	73.4
February	98.1	82.2	126.4	69.0	135.6	90.4	54.9	111.9	119.9	166.9	117.4	103.3	101.9	87.0	74.1	74.4
March	97.9	83.8	122.7	70.4	135.5	90.2	54.9	111.4	119.9	166.5	117.2	102.4	102.1	87.1	73.8	74.9
April	98.3	86.0	117.4	72.5	134.5	89.8	55.5	110.5	118.9	164.8	116.5	101.7	102.2	87.5	74.0	76.8
May	99.0	85.4	116.7	72.5	134.9	89.3	55.4	109.6	118.3	165.1	116.3	100.2	102.0	88.2	74.2	79.7
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
7	97.7	84.0	113.3	76.6	136.3	89.1	55.7	110.1	117.8	166.5	117.8	98.4	101.4	88.3	74.2	77.0
14	97.7	84.4	112.6	75.4	136.4	89.2	55.7	110.3	118.1	167.5	119.5	98.8	101.6	88.4	74.4	76.9
21	97.8	84.2	112.3	72.9	137.3	89.4	55.6	110.9	118.5	169.6	119.6	100.0	101.8	88.3	74.4	76.7
28	97.3	84.1	111.4	73.1	138.4	89.9	55.1	110.8	118.3	171.5	120.4	99.2	101.6	88.3	74.3	75.9
October 5	97.3	84.3	110.8	73.2	138.6	90.0	54.7	110.9	118.1	170.9	120.7	99.1	102.6	88.4	74.3	75.9
12	98.4	83.8	110.6	73.5	138.2	89.9	54.4	110.5	118.0	168.6	120.3	98.5	102.6	88.6	74.6	76.9
19	99.2	83.6	108.3	73.5	136.1	89.8	54.6	110.9	118.0	167.2	120.5	99.0	102.8	88.4	74.8	77.3

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1975	98.6	102.6	87.9	104.4	100.5	102.6	97.8	98.0	100.0	104.1	103.8	96.9	98.9	105.9	100.9	106.8
1976	100.2	106.5	89.0	96.7	101.2	100.1	92.6	97.9	101.7	108.2	106.6	97.4	101.1	108.6	101.6	105.1
1977	99.8	99.6	94.7	101.6	102.5	96.2	95.6	99.8	103.8	102.5	109.9	98.5	102.0	104.7	91.6	100.8
1978	95.2	92.8	108.8	106.3	103.3	96.7	93.8	99.6	103.6	119.8	109.9	104.6	97.8	96.1	86.9	96.9
1978																
October	92.0	89.6	117.1	105.3	104.4	97.5	92.7	100.0	103.2	128.6	109.0	106.2	97.7	95.5	84.4	100.1
November	94.0	90.9	112.7	106.2	104.4	96.9	92.3	100.0	102.9	119.1	109.2	106.8	97.3	96.0	85.3	101.0
December	94.6	90.0	109.8	107.2	105.2	97.4	92.0	99.6	103.0	117.3	109.5	105.9	96.5	95.6	85.5	101.0
1979																
January	94.6	90.2	107.8	107.9	104.8	98.6	92.5	99.7	103.7	114.3	110.4	106.5	95.5	95.5	85.4	101.4
February	94.9	90.5	106.2	108.9	104.8	98.5	92.5	99.5	103.4	112.1	110.1	106.1	94.3	97.0	85.9	103.1
March	96.4	88.0	103.5	111.7	104.9	98.4	92.7	98.9	102.7	111.3	109.3	105.4	94.4	97.1	85.9	105.3
April	94.9	95.2	98.7	115.9	103.6	98.2	93.9	97.8	101.6	109.4	108.1	104.2	94.6	97.4	85.7	109.0
May	95.9	94.2	98.1	116.8	103.6	98.1	94.0	96.8	100.5	107.9	107.5	103.4	94.1	98.7	85.9	113.6
June	96.0	92.6	97.8	120.4	104.2	98.3	93.5	96.5	99.6	106.5	107.6	101.4	92.9	99.7	86.1	112.7
July	94.3	92.5	97.9	128.0	104.2	98.2	93.5	97.1	98.2	105.7	107.7	103.1	90.8	99.0	85.4	110.9
August	95.2	91.4	97.1	127.1	103.9	98.5	95.4	96.4	98.1	104.3	107.5	103.8	90.4	99.8	85.7	111.6
September	94.9	92.8	94.8	123.8	104.5	99.1	94.5	96.8	98.2	106.0	109.4	104.8	90.3	100.0	86.1	111.5

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1970	1971	1972	1973	1974	1975	1976	1977	1978r	1979 Marr	1979 Junr
Estimated size											
Gross	110	145	200	305	375	460	565	695	890	890	960
Liabilities to nonbanks	30	30	35	55	75	80	100	125	165	180	n.a.
Liabilities to central banks	15	15	25	40	60	70	85	110	120	125	n.a.
Liabilities to other banks[a]	65	100	140	210	240	310	380	460	605	585	n.a.
Net	65	85	110	160	215	250	310	380	480	495	535
Claims on nonbanks	25	35	45	65	100	115	145	190	235	240	n.a.
Claims on central banks and on banks outside market area[b]	30	35	45	75	95	115	140	160	200	210	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	10	15	20	20	20	20	25	30	45	45	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	81	76	78	73	77	78	79	76	74	74	n.a.

a Includes unallocated liabilities
b Includes unallocated claims
c In European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976 Dec	1977 Dec	1978 Dec	1979 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Euro-dollar:											
overnight	4.63	7.12	10.62	10.00	10.12	10.12	10.00	10.37	10.75	11.25	11.75
7-day fixed	4.75	6.31	10.62	10.00	10.25	10.12	10.12	10.50	10.87	11.37	11.87
one month	5.13	6.87	11.00	9.62	10.25	10.44	10.25	10.81	10.94	11.75	13.00
three months	5.00	7.19	11.69	10.50	10.50	10.75	10.44	10.50	11.31	12.12	12.75
six months	5.38	7.50	12.31	10.94	10.56	11.06	10.62	10.50	11.12	12.12	12.75
twelve months	5.56	7.67	12.00	10.44	10.56	10.87	10.44	10.19	10.81	11.69	12.19
Euro-mark:											
one month	4.62	2.19	3.19	3.87	4.75	5.12	5.62	6.12	6.19	7.25	7.19
three months	4.69	2.50	3.31	3.94	4.94	5.44	6.12	6.19	6.50	7.44	7.44
six months	4.75	2.81	3.69	4.19	5.37	5.87	6.75	6.62	6.94	7.62	7.50
twelve months	4.81	3.06	3.81	4.50	5.50	6.25	7.06	6.87	6.94	7.62	7.50
Euro-Swiss franc:											
one month	0.94	1.31	—.06	0.06	0.25	1.31	1.75	0.94	1.31	1.87	1.06
three months	1.44	1.37	0.00	0.12	0.37	1.56	1.94	0.19	1.44	1.00	1.75
six months	2.12	1.87	0.12	0.37	0.87	2.50	2.75	1.81	2.31	2.69	2.00
twelve months	2.50	2.25	0.62	0.69	1.44	2.75	3.12	2.12	2.56	2.94	2.37
Euro-sterling:											
one month	16.37	6.50	12.00	13.19	12.37	12.06	11.75	14.25	14.75	14.37	13.87
three months	16.12	6.62	12.62	12.44	12.12	11.69	11.75	14.00	14.75	14.25	14.06
six months	14.75	7.12	13.25	11.87	11.75	11.19	11.56	13.44	14.12	14.25	14.06
twelve months	14.50	7.37	13.00	11.81	11.62	11.00	11.37	12.62	13.25	13.75	13.50
Euro-French franc:											
one month	12.37	12.25	10.50	6.87	7.62	8.50	11.37	10.75	11.94	11.87	13.12
three months	12.62	13.25	9.87	7.75	8.12	8.25	11.37	11.00	12.06	12.44	13.25
six months	12.62	14.00	9.87	8.62	8.75	8.62	11.50	11.37	12.50	12.94	13.37
twelve months	12.50	13.25	10.25	8.94	9.25	9.25	11.50	11.37	12.25	12.94	13.31
Euro-yen:											
one month	7.00	0.62	—.69	2.19	5.87	4.44	4.62	4.69	6.00	6.87	6.87
three months	6.62	1.81	0.62	3.44	6.00	4.94	5.25	5.75	6.00	7.00	7.31
six months	6.44	2.75	1.87	4.00	5.56	5.56	5.69	6.06	6.37	7.00	7.19
twelve months	6.25	3.25	2.19	3.87	5.87	6.00	6.19	6.12	6.50	7.00	7.00

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1976	1977	1978	1979			Jan-Oct	
				Augr	Sepr	Octp	1979	1978
Industrial countries	**11 254**	**17 205**	**28 952**	**1 645**	**1 745**	**2 455**	**19 001**	**26 363**
Canada	885	3 292	5 705	75	20	—	595	5 405
Denmark	607	868	2 242	—	25	—	1 115	2 206
Finland	300	314	550	30	—	12	92	475
France	586	2 325	1 915	—	—	1 100	2 745	1 915
Greece	323	204	509	—	500	—	640	497
Ireland	433	440	616	—	37	—	687	616
Italy	355	1 024	2 485	125	565	23	2 818	2 195
Japan	370	112	27	—	—	—	—	27
Norway	472	182	1 517	62	25	—	788	1 272
Spain	2 037	1 973	2 426	587	260	653	3 542	1 853
Sweden	440	1 446	1 872	50	—	—	323	1 857
United Kingdom	1 671	1 992	3 899	188	—	—	678	3 489
United States	677	826	1 206	—	95	147	1 385	1 036
Others	2 097	2 207	3 983	528	218	520	3 593	3 520
Developing countries	**15 017**	**20 976**	**37 300**	**4 560**	**4 629**	**4 721**	**41 669**	**31 087**
Non-OPEC countries	11 019	13 494	26 902	3 328	3 338	3 330	30 071	22 328
Argentina	957	849	1 461	275	160	165	2 267	1 242
Brazil	3 232	2 814	5 634	654	70	1 391	5 592	5 148
Chile	208	591	1 045	135	—	295	735	1 045
Korea	738	1 265	2 651	37	186	30	2 541	1 988
Malaysia	207	212	858	18	—	550	668	858
Mexico	1 993	2 727	7 250	1 468	191	600	7 631	5 911
Morocco	641	797	605	—	—	—	500	605
Peru	395	189	—	—	40	45	523	—
Philippines	970	698	2 073	136	30	207	1 493	1 706
Taiwan	219	524	255	200	378	15	1 066	255
Others	1 458	2 828	5 070	405	2 283	32	7 055	3 570
OPEC countries	3 999	7 481	10 398	1 232	1 291	1 391	11 598	8 759
Algeria	643	723	2 576	520	25	—	1 656	1 741
Indonesia	469	817	1 118	—	—	29	1 061	768
Iran	1 411	1 220	1 107	—	—	—	—	1 107
United Arab Emirates	55	1 086	726	27	—	—	401	698
Venezuela	1 185	1 666	2 054	343	1 034	1 225	6 295	1 811
Other	235	1 969	2 817	342	232	137	2 185	2 634
Communist countries	**2 503**	**3 394**	**3 767**	**160**	**700**	**460**	**7 220**	**3 217**
China	—	—	—	50	100	120	3 595	—
East Germany	215	832	642	—	200	—	636	642
Hungary	300	300	700	—	250	—	260	400
Poland	525	19	374	110	—	—	762	374
Others	1 463	2 243	2 051	—	150	340	1 967	1 801
International organizations	**74**	**190**	**160**	—	**150**	—	**275**	**160**
TOTAL	**28 850**	**41 765**	**70 179**	**6 365**	**7 224**	**7 636**	**68 165**	**60 827**

a includes multi-national organizations *b* includes regional development organizations *c* includes COMECON institutions *p* preliminary
r revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	8.61	8.59	8.67	8.72	8.79	8.83	8.99	9.27
Swiss franc	5.46	5.31	5.70	5.82	5.88	5.93	6.11	6.11	6.12	6.16	6.20
European companies:											
U.S. dollar	8.56	8.42	9.21	9.22	9.20	9.22	9.25	9.29	9.45	9.65	9.86
German mark	7.38	6.80	6.84	6.95	7.06	7.17	7.26	7.25	7.08	7.13	7.16
Governments:											
U.S. dollar	8.90	8.42	9.12	9.21	9.16	9.15	9.16	9.18	9.25	9.43	9.49

New international bond issues

new issues in period, in millions of dollars

	1976	1977	1978	1979			Jan-Oct	
				Augr	Sepr	Octp	1979	1978
By type:								
Euro-bonds, total	**14 328**	**17 771**	**14 125**	**1 419**	**1 613**	**715**	**16 325**	**12 188**
by category of borrower								
U.S. companies	435	1 130	1 122	300	50	30	2 397	961
Foreign companies	5 323	7 347	4 540	4	795	358	6 037	3 812
State enterprises	4 138	4 667	3 291	433	236	271	4 316	2 873
Governments	2 239	2 936	3 643	127	532	—	2 273	3 103
International organizations	2 193	1 691	1 529	124	—	56	1 302	1 439
by currency of denomination								
U.S. dollar	9 125	11 627	7 290	1 150	990	475	10 627	6 405
German mark	2 713	4 131	5 251	82	308	146	3 300	4 404
Dutch guilder	502	452	394	37	134	—	518	394
Canadian dollar	1 407	655	—	26	52	—	425	—
European unit of account	99	28	165	27	—	—	145	165
Other	482	878	1 025	97	129	94	1 310	820
Foreign bonds outside the United States, total	**7 586**	**8 777**	**14 359**	**1 177**	**1 303**	**1 335**	**14 318**	**10 341**
by category of borrower								
U.S. companies	28	40	245	—	—	—	217	180
Foreign companies	1 654	1 421	2 110	337	308	179	3 081	1 883
State enterprises	2 439	2 427	3 163	328	337	354	2 430	2 726
Governments	1 307	2 043	5 771	121	228	430	6 214	3 282
International organizations	2 158	2 846	3 070	391	430	372	2 376	2 270
by currency of denomination								
German mark	1 288	2 181	3 780	412	347	353	3 311	1 703
Swiss franc	5 359	4 970	5 698	719	840	629	9 000	4 781
Dutch guilder	597	211	385	—	—	75	75	349
Japanese yen	226	1 271	3 826	46	—	261	1 523	3 008
Other	116	144	671	—	116	17	409	510
Foreign bonds in the United States, total	**10 604**	**7 428**	**5 795**	**80**	**1 089**	**415**	**4 317**	**5 306**
by category of borrower								
Canadian entities	6 138	3 022	3 142	—	734	215	2 193	2 830
International organizations	2 275	1 917	459	—	200	200	1 175	459
Other	2 191	2 489	2 194	80	155	—	949	2 017
By country of borrower:								
Industrial countries	**24 200**	**23 851**	**24 964**	**2 024**	**3 003**	**1 584**	**27 112**	**20 131**
Australia	1 056	1 074	1 218	—	—	44	470	962
Austria	682	1 384	1 027	63	155	128	987	904
Canada	9 336	5 277	4 764	176	820	215	4 110	4 352
Denmark	994	796	1 109	75	37	91	586	887
Finland	342	358	952	—	63	73	612	746
France	2 720	1 945	1 286	263	122	158	1 810	1 237
Japan	2 084	1 979	3 467	613	828	363	5 075	2 667
Netherlands	486	682	251	37	84	45	712	251
New Zealand	413	567	744	60	110	46	496	483
Norway	1 406	1 889	2 751	55	269	122	1 748	2 305
Sweden	1 111	1 574	876	161	164	—	1 247	804
United Kingdom	1 036	1 915	1 365	75	30	—	831	1 307
United States	463	1 353	2 973	300	50	30	5 171	1 141
Developing countries	**1 595**	**3 421**	**4 227**	**111**	**353**	**253**	**2 920**	**3 506**
Non-OPEC countries	1 456	2 676	2 684	111	298	253	2 545	2 377
Brazil	268	732	843	46	70	166	858	706
Mexico	448	1 282	568	—	—	—	338	568
Philippines	367	129	170	—	100	—	175	93
OPEC countries	139	745	1 543	—	55	—	375	1 129
Algeria	109	166	721	—	—	—	208	435
Venezuela	—	438	508	—	55	—	55	460
Communist countries	**96**	**248**	**30**	**26**	**19**	—	**75**	**30**
Hungary	25	174	—	—	—	—	—	—
International organizations	**6 626**	**6 454**	**5 058**	**515**	**630**	**628**	**4 853**	**4 168**
TOTAL	**32 518**	**33 976**	**34 279**	**2 676**	**4 005**	**2 465**	**34 960**	**27 835**

Central bank discount rates

	1976	1977	1978		1979			Current	
	end Dec	end Dec	end Sep	end Dec	end Mar	end Jun	end Sep	Oct 19 1979	effective since
United States	5.25	6.00	8.00	9.50	9.50	9.50	11.00	12.00	Oct 8, 79
Canada	8.50	7.50	9.50	10.75	11.25	11.25	12.25	13.00	Oct 9, 79
Japan	6.50	4.25	3.50	3.50	3.50	4.25	5.25	5.25	Jul 24, 79
United Kingdom	14.25	7.00	10.00	12.50	13.00	14.00	14.00	14.00	Jun 12, 79
Belgium	9.00	9.00	6.00	6.00	6.00	9.00	9.00	10.00	Oct 3, 79
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	3.00	4.00	4.00	5.00	5.00	Jul 13, 79
Italy	15.00	11.50	10.50	10.50	10.50	10.50	10.50	12.00	Oct 8, 79
Netherlands	6.00	4.50	5.50	6.50	6.50	7.00	8.00	8.00	Jul 13, 79
Austria	4.00	5.50	4.50	4.50	3.75	3.75	3.75	3.75	Jan 25, 79
Denmark	10.00	9.00	8.00	8.00	8.00	9.00	11.00	11.00	Sep 17, 79
Finland	9.25	8.25	7.25	7.25	7.25	7.25	7.25	7.25	May 1, 78
Ireland	14.75	6.75	9.60	11.85	11.85	13.70	13.70	13.70	Jun 22, 79
Norway	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	Feb 13, 78
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	6.50	6.50	6.50	8.00	8.00	Sep 27, 79
Switzerland	2.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	Feb 27, 78
Brazil	28.00	28.00	33.60	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	14.50	14.50	14.50	Jun 13, 78
New Zealand	8.50	10.00	11.00	11.00	12.50	13.00	13.00	13.00	Apr 19, 79
Philippines	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	Dec 12, 74
Singapore	4.00	3.50	4.00	4.50	4.50	5.00	5.75	5.75	Aug 20, 79
South Africa	9.00	9.00	8.50	8.50	7.50	7.50	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

Day-to-day money rates

monthly averages

	1976	1977	1978	1979							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	4.65	6.55	9.91	10.06	10.09	9.98	10.23	10.26	10.42	10.88	11.32
Canada	8.66	6.84	9.44	10.66	11.33	10.77	10.88	10.47	11.03	10.96	9.87
Japan	7.11	5.01	4.57	4.35	4.64	4.87	5.12	5.34	5.86	6.73	6.81
Australia	7.17	9.96	8.40	6.91	7.42	7.57	7.57	7.82	8.58	8.74	8.89
United Kingdom	14.56	4.81	10.00	11.67	11.50	10.00	10.80	9.31	12.06	11.66	12.78
Belgium	7.51	7.48	6.73	6.29	5.41	5.31	4.94	7.80	9.66	9.37	8.96
France	10.44	9.30	6.67	6.68	6.77	6.82	7.20	8.01	9.34	10.44	11.00
Germany	5.03	3.24	3.61	3.80	4.33	5.23	5.19	5.62	5.75	6.40	6.70
Italy	16.75	11.37	11.00	11.12	11.12	11.12	11.12	11.25	11.25	11.25	11.25
Netherlands	6.89	5.27	10.00	7.86	7.30	7.19	7.15	7.69	8.81	8.81	9.58
Austria	n.a.	9.25	5.37	4.37	4.50	4.50	5.00	6.25	6.00	5.75	6.50
Finland	14.53	22.99	9.29	8.80	8.29	8.42	8.35	8.35	8.31	8.36	8.68
Ireland	14.81	8.00	12.12	19.00	14.88	15.75	12.88	27.70	15.75	16.12	17.62
Spain	8.03	7.22	16.75	9.06	11.52	16.38	20.93	9.82	13.32	15.34	10.80
Sweden	10.69	8.91	6.26	5.83	6.05	6.01	6.86	7.74	9.16	10.00	9.24
Switzerland	0.50	0.85	0.00	0.00	0.00	0.37	0.75	0.87	0.50	0.87	1.12
Brazil	25.92	28.44	35.64	36.00	35.88	34.56	24.48	23.52	n.a.	n.a.	n.a.
Hong Kong	4.81	4.87	9.67	10.12	11.01	12.75	12.25	11.25	10.25	12.50	10.37
Korea	14.00	14.40	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Mexico	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11
Philippines	15.46	14.44	13.22	13.34	13.14	14.18	14.66	14.92	14.61	14.56	11.75
Singapore	3.59	3.59	4.98	5.83	5.57	5.88	6.38	6.84	7.11	7.09	6.66
South Africa	7.59	7.65	7.11	6.70	6.21	5.37	5.25	5.15	4.90	4.36	4.12
Euro-dollars	4.66	6.94	10.80	10.55	10.31	10.28	10.25	10.91	10.77	11.34	11.73

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	4.41	6.33	9.42	9.60	9.50	9.77	9.74	8.84	9.42	9.97	10.62
Canada	8.14	7.17	10.46	10.82	10.92	10.82	10.84	10.78	11.25	11.45	11.64
Japan	5.68	4.15	3.39	3.39	3.39	4.15	4.15	4.15	4.15	5.17	5.17
Australia	8.73	8.35	8.35	8.35	8.65	9.02	9.02	9.02	9.02	9.02	9.02
United Kingdom	13.98	6.42	12.01	12.37	11.80	11.63	11.78	13.69	13.78	13.78	14.01
Belgium	10.00	9.25	9.25	7.90	7.35	7.90	9.00	11.25	12.00	12.00	13.00
Ireland	14.28	6.74	11.83	12.34	12.23	11.39	11.31	11.67	13.48	13.60	13.56
Italy	17.38	12.81	12.81	11.62	11.86	11.51	10.92	11.51	11.62	11.62	11.59
Netherlands	5.63	6.00	9.50	7.50	7.25	6.75	7.25	7.50	8.75	9.00	9.00
Sweden	9.75	9.21	5.84	5.84	5.83	5.83	5.82	5.82	6.60	6.60	6.60
Brazil	38.58	38.08	41.21	39.49	39.26	38.51	38.39	43.95	n.a.	n.a.	n.a.
Korea	n.a.	16.88	17.01	17.01	17.01	17.01	17.01	17.01	19.53	19.53	19.53
Mexico	n.a.	n.a.	12.75	13.74	13.93	14.03	14.29	14.45	14.89	15.32	n.a.
New Zealand	4.00	7.50	10.50	10.60	10.60	10.60	10.60	10.60	10.60	10.60	10.60
Philippines	9.78	10.04	12.08	12.56	12.40	12.33	12.57	12.75	12.82	12.77	12.70
Singapore	2.99	3.17	4.01	4.31	4.40	4.39	4.53	4.55	4.60	5.25	5.73
South Africa	7.94	8.17	7.61	6.88	6.23	5.65	5.57	5.49	5.11	4.56	4.49

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	4.75	6.84	10.57	10.15	9.99	9.84	10.15	9.94	10.20	11.26	11.95
Canada	8.62	7.25	10.62	10.87	11.25	11.25	11.12	11.00	11.62	12.00	11.90
Japan	6.75	5.89	4.64	5.01	5.05	5.01	5.21	5.29	5.81	6.41	7.12
Australia	9.75	9.75	9.10	9.30	9.50	11.00	10.60	10.40	10.00	10.20	10.30
United Kingdom	14.38	6.50	12.50	12.37	12.19	11.62	11.75	14.00	14.19	14.12	14.06
Belgium	10.50	9.50	9.25	8.10	8.05	8.05	9.15	9.75	12.00	12.00	12.50
France	10.00	9.19	6.44	7.06	7.12	7.00	8.62	9.19	10.69	11.37	11.62
Germany	4.80	3.60	3.70	4.10	5.35	5.75	6.40	6.65	6.95	7.45	7.90
Ireland	14.69	6.75	13.00	15.25	14.50	14.37	14.25	18.50	17.87	17.62	17.62
Italy	16.63	11.75	11.37	11.50	11.50	11.50	11.50	11.44	11.62	11.62	11.62
Netherlands	5.88	6.25	10.50	7.87	7.25	7.50	9.12	8.50	9.62	9.62	9.87
Spain	11.36	12.06	22.80	14.00	14.70	19.50	24.60	16.90	16.20	18.80	15.70
Switzerland	1.84	2.02	0.50	0.25	0.87	1.62	2.12	2.00	1.62	2.12	1.62
Brazil	45.44	46.93	51.47	46.93	46.93	46.63	45.88	47.23	n.a.	n.a.	n.a.
Hong Kong	5.50	5.73	11.82	10.76	11.69	13.12	13.25	12.38	11.50	13.45	13.12
Korea	16.99	16.88	17.01	17.01	17.01	17.01	17.01	17.01	19.53	19.53	19.53
New Zealand	10.37	11.87	12.00	13.25	13.70	14.50	14.25	14.50	15.25	15.50	15.00
Philippines	15.47	11.96	11.48	12.42	12.29	12.46	11.88	11.63	10.76	10.13	9.94
Singapore	3.75	4.81	7.38	7.69	7.31	7.38	7.44	7.63	7.81	8.25	8.75
South Africa	9.73	9.00	7.85	7.28	6.59	6.07	5.97	5.86	5.45	5.03	4.93

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	4.70	6.80	10.90	10.25	10.00	10.25	10.10	9.90	10.30	11.35	12.10
Canada	8.00	7.25	10.45	10.90	11.20	11.20	11.05	11.05	11.55	11.80	11.90
Japan	4.50	3.25	2.50	2.50	2.50	2.50	3.25	3.25	3.25	4.00	4.00
Australia	9.75	9.50	8.50	8.35	9.00	10.50	10.50	10.00	9.50	9.70	9.90
United Kingdom	14.13	6.37	12.25	12.31	12.12	11.75	11.81	13.75	14.00	14.19	14.06
Belgium	10.00	9.50	9.87	8.00	7.62	8.00	9.13	11.12	12.12	12.13	13.00
France	9.50	9.00	6.50	6.75	6.87	7.25	8.25	9.50	10.50	11.25	11.50
Germany	4.20	3.40	3.50	3.50	4.50	5.25	5.50	6.00	6.50	6.50	7.00
Italy	17.00	17.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
Netherlands	6.13	7.00	11.62	8.75	8.37	8.12	9.50	9.25	10.00	10.12	10.25
Austria	n.a.	9.00	6.75	5.25	5.25	5.50	6.12	7.25	7.50	7.37	8.25
Denmark	9.00	8.00	7.00	7.00	7.00	7.00	7.00	8.00	8.00	8.00	10.00
Finland	5.75	4.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Ireland	n.a.	6.87	12.75	15.00	14.37	14.62	14.00	16.75	16.75	17.37	17.25
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	6.25	6.25	6.25	6.25	6.25	6.75	6.75	6.75
Switzerland	1.50	1.12	0.12	0.12	0.12	0.75	1.25	0.75	0.75	1.25	1.00
Brazil	45.60	39.60	46.80	45.24	45.12	43.80	48.24	46.92	n.a.	n.a.	n.a.
Hong Kong	3.25	1.75	4.50	5.25	5.75	7.75	7.75	7.75	7.75	9.25	9.25
Korea	15.00	13.20	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Mexico	9.50	9.50	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.39	12.39
New Zealand	10.25	11.00	12.00	13.00	12.80	14.00	13.80	14.10	15.00	14.75	14.50
Philippines	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50
Singapore	3.75	5.31	7.31	7.12	6.50	6.69	6.94	7.00	7.44	8.12	8.44
South Africa	9.75	8.70	7.30	6.95	6.35	5.80	5.70	5.65	5.27	4.87	4.75
Venezuela	8.00	7.00	7.25	11.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
Euro-dollars	5.00	7.19	11.69	10.50	10.50	10.75	10.44	10.50	11.31	12.12	12.75

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	6.00	7.75	11.75	11.75	11.75	11.75	11.75	11.50	11.75	12.75	13.50
Canada	9.25	8.25	11.50	12.00	12.00	12.00	12.00	12.00	12.50	12.50	13.00
Japan	7.42	5.47	4.50	4.45	4.44	4.48	4.68	4.87	5.06	5.20	5.60
Australia	11.50	11.50	11.00	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75
United Kingdom	15.50	8.00	13.50	15.00	14.00	13.00	13.00	15.00	15.00	15.00	15.00
Belgium	11.75	10.00	10.00	9.00	9.00	9.00	10.00	11.00	12.50	12.50	13.25
France	11.65	11.35	10.95	10.95	10.95	10.95	11.30	11.60	12.20	12.20	12.50
Germany	6.50	6.00	5.50	5.50	6.00	6.75	6.50	7.50	7.75	7.75	8.25
Italy	21.00	16.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Netherlands	8.50	7.00	12.00	9.50	9.00	9.00	10.00	10.00	11.00	11.00	11.00
Austria	n.a.	9.75	8.75	8.75	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Denmark	14.00	12.50	10.00	9.50	9.50	9.50	10.00	11.00	11.00	11.00	13.00
Finland	9.71	8.85	7.87	7.83	7.81	7.82	7.83	7.83	7.84	n.a.	n.a.
Ireland	13.25	7.50	13.00	13.00	13.00	13.00	13.00	15.50	15.50	15.50	15.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	11.75	11.75	10.25	10.25	10.25	10.25	10.25	10.25	10.75	10.75	10.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Brazil	30.00	52.05	61.70	61.50	62.00	62.00	63.50	61.82	n.a.	n.a.	n.a.
Hong Kong	6.00	4.75	8.75	10.50	11.00	13.00	13.00	13.00	13.00	14.50	14.50
Korea	17.00	15.00	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
Mexico	15.50	17.00	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50	17.50
New Zealand	7.50	8.50	10.75	11.00	11.00	11.50	12.00	11.75	11.50	12.00	11.75
Philippines	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Singapore	6.78	7.02	7.65	8.00	8.08	8.12	8.12	8.12	8.35	8.78	8.92
South Africa	12.50	12.50	11.50	11.00	10.00	10.00	10.00	10.00	10.00	9.50	9.50
Venezuela	9.50	9.50	10.25	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Euro-dollars	5.50	7.56	12.06	10.87	10.87	11.12	10.81	10.87	11.68	12.49	13.12

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	7.20	7.97	9.00	9.09	9.04	9.20	9.07	8.82	8.95	9.05	9.28
Canada	8.47	8.77	9.68	9.97	9.91	9.66	9.68	9.73	9.84	10.15	10.38
Japan	8.61	6.40	6.40	6.98	7.22	7.97	8.02	8.16	7.85	8.14	8.04
Australia	10.50	9.50	8.90	9.45	9.50	10.00	10.00	10.10	10.25	10.15	10.15
United Kingdom	14.31	10.53	12.75	12.51	11.47	11.39	11.89	12.34	12.10	11.76	12.05
Belgium	9.30	8.76	8.80	8.83	8.90	8.99	9.21	9.42	9.63	9.80	9.90
France	11.04	11.07	9.94	9.77	9.74	9.64	9.96	10.71	11.25	11.67	11.56
Germany	7.28	5.52	6.65	7.11	7.15	7.41	7.91	8.04	7.71	7.66	7.65
Italy	13.92	10.82	10.69	10.83	10.87	10.90	10.91	10.90	10.91	10.84	10.81
Netherlands	8.40	8.11	8.48	8.37	8.52	8.58	8.77	9.01	8.98	8.73	8.77
Austria	8.55	9.00	7.91	7.49	7.43	7.59	7.85	8.05	8.16	8.19	n.a.
Denmark	14.57	16.83	17.27	16.39	15.95	15.68	16.85	17.13	17.23	17.35	17.76
Finland	10.92	10.25	9.19	9.22	9.34	9.51	9.41	9.53	9.39	9.41	9.53
Ireland	15.49	11.30	13.44	13.48	13.33	13.46	13.81	15.37	15.99	15.72	n.a.
Norway	7.25	8.37	8.19	8.25	8.28	8.31	8.38	8.26	8.29	8.32	8.25
Sweden	9.61	9.84	10.09	10.12	10.15	10.18	10.20	10.21	n.a.	n.a.	n.a.
Switzerland	4.43	3.75	3.03	3.09	3.24	3.19	3.19	3.43	3.51	3.51	3.50
Brazil	38.39	37.30	52.83	44.82	46.86	44.33	44.32	46.05	n.a.	n.a.	n.a.
New Zealand	8.70	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Philippines	13.41	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.40
South Africa	11.00	10.75	9.85	9.12	9.20	9.20	9.53	9.74	9.73	9.55	9.40
Venezuela	7.04	7.24	7.24	7.30	7.31	7.35	7.37	7.36	7.21	7.35	7.36

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	7.35	8.30	9.25	9.45	9.38	9.55	9.40	9.15	9.20	9.45	9.70
Canada	9.58	9.71	10.34	10.52	10.46	10.30	10.29	10.34	10.52	10.85	11.09
Japan	8.81	6.68	6.94	7.06	7.46	7.84	7.90	8.05	7.80	7.75	7.79
Australia	12.00	11.00	10.25	10.50	10.75	11.00	11.00	11.25	11.35	11.25	11.15
United Kingdom	15.96	11.88	13.53	14.09	12.62	12.08	12.31	13.00	12.76	12.64	12.88
Belgium	11.88	9.85	9.58	9.47	9.38	9.70	9.82	10.13	10.32	10.83	10.92
France	11.39	12.09	10.27	10.16	10.11	10.01	10.30	11.12	11.54	12.03	11.88
Germany	7.47	5.92	6.80	7.00	7.10	7.30	7.60	7.90	8.00	7.80	7.80
Italy	16.90	10.71	10.12	9.97	9.95	10.27	9.84	10.07	10.07	10.04	9.92
Netherlands	8.22	7.90	8.62	8.33	8.38	8.47	8.73	9.12	9.15	8.96	8.82
Norway	7.65	8.59	8.37	8.53	8.62	8.47	8.56	8.36	8.45	8.54	8.63
Spain	10.86	11.58	12.17	12.16	12.05	12.06	11.69	11.52	11.79	12.04	12.04
Sweden	9.82	9.83	10.03	10.04	9.47	9.51	9.62	9.48	9.16	9.59	9.65
Switzerland	5.50	4.96	4.85	4.90	5.03	5.02	5.15	5.30	5.17	5.24	5.27
Korea	21.70	19.60	24.00	25.00	25.00	25.00	29.00	29.00	29.20	29.20	29.20
Mexico	15.56	17.56	20.37	21.53	21.87	20.74	19.21	19.88	19.51	n.a.	n.a.
Venezuela	10.37	10.39	12.43	11.50	11.68	12.18	11.70	12.28	12.69	12.71	13.35

Key to data in tables

I. International markets

Definitions

An *international bond* issue is one sold outside the country of the borrower. It may be either a Euro-bond issue or a foreign bond issue.

A *Euro-bond* issue is one underwritten by an international syndicate and sold principally in countries other than the country of the currency in which the issue is denominated.

A *foreign bond* issue is one underwritten by a syndicate composed of members from one country, sold principally in that country, and denominated in the currency of that country.

A *Euro-currency bank credit* is a loan in a currency which is not native to the country in which the bank office making the loan is located.

Data on *new international bond issue volume* include all publicly announced issues with an original maturity of three years or more, whether publicly or privately placed, but exclude those where the investor is a central bank, monetary authority, or government.

Data on *new Euro-currency bank credit volume* include all publicly announced loans with an original maturity of more than one year. A loan is included in the period in which the lending banks make a commitment covering the amount and terms of the loan to the borrower.

Categories of borrower

U.S. companies include both parent companies and their financing affiliates, either domestic or foreign.

Other companies include private companies domiciled outside the United States and their affiliates.

State enterprises include public agencies.

Governments include central and local governments.

Country of borrower

The country of the borrower is the residence of the borrowing entity, except where the entity is a financing vehicle, in which case the residence of the parent company and or guarantor is used.

International bond yields

Yields are calculated to the nearest day of maturity. Interest on bonds with annual coupons is discounted semiannually for comparability in computation of yield.

The yield indices are simple arithmetic averages of end-of-month secondary market yields for groups of selected straight-debt securities. Yield indices for six categories of bonds have been calculated according to borrower and currency. They are based on issues of good-quality, well-known borrowers. Occasionally the individual issues in each category are changed.

The number of issues represented in each of the indices is as follows:

Long-Term, U.S. companies, U.S. dollar — —ten Euro-bond issues.

Long-term, U.S. companies, Swiss franc — ten foreign bond issues.

Long-term, European companies, U.S. dollar — ten Euro-bond issues.

Long-term, European companies, German mark — ten Euro-bond issues.

Long-term, governments, U.S. dollar — six Euro-bond issues (governments of Italy, Denmark, and France).

Euro-currency deposit rates

All data are prime banks' bid rates for deposits in London. Offer rates commonly used as a basis for Euro-dollar lending are generally .125% above bid rates.

II. Domestic markets

Day-to-day money rates

Austria — day-to-day interbank rate.

Australia — approximate effective interest rate in the authorized short-term money market.

Belgium — Interbank call money.

Brazil — interbank overnight market for Banco do Brasil checks.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48 hour call money.

Japan — Tokyo interbank call money, overnight lenders rate until December 1974. New series as of January 1975, unconditional lenders rate.

Korea — call money.

Mexico — financiera bonds in bearer form available to corporations, redeemable on demand. Higher rates available to individuals.

Netherlands — open-market call money.

Philippines — interbank call money.

Singapore — interbank overnight money.

South Africa — National Finance Corporation call money.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

United Kingdom — call money.

United States — effective Federal funds rate.

Euro-dollars — prime banks' bid rate for overnight money.

Treasury bill rates

Australia — new issues of 13-week Treasury notes.

Belgium — 3-month Treasury certificates.

Brazil — 91-day Treasury bills (LTN), at tender.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month Central Bank Exchequer bills.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Korea — 3-month Treasury bills sold by Korean Central Bank.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — 3-month Treasury bills.

Philippines — 91-day Treasury bills at tender.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Sweden — new issues of 3-month Treasury bills.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — 3-month prime finance company paper.

Belgium — 4-month Fonds des Rentes certificates.

Brazil — 90-day first class commercial paper of major financial groups.

Canada — 3-month prime finance company paper.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — Tokyo Interbank call money, unconditional, lender's rate until December 1974. New series as of January 1975, 3-month repurchase agreements.

Korea — 3-month financial bill.

Netherlands — 3-month municipal loans until December 1976. New series as of January 1977, 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — 90-day promissory notes.

Singapore — 3-month bank acceptances.

South Africa — 90-day bank acceptances.

Spain — 1- to 2-month interbank deposits.

Switzerland — 3-month interbank deposits.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month non-negotiable certificates of deposit of investment banks. Legal maximum rates until April 1975, free rate subsequently.

Canada — 3-month time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — 3-month certificates of deposit. Rate set by the Hong Kong Exchange Banks' Association.

Ireland — 3-month time deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Key to data in tables – continued

Japan — 3-month time deposits.

Korea — 3-month time deposits.

Mexico — 3-month certificates of deposit issued by financieras to corporations for amounts over Ps. 1 million. Higher rates available to individuals.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month time deposits. Higher rates may be negotiated for 12-month or more time deposits in large amounts.

Philippines — 3-month time deposits.

Singapore — 3-month time deposits until May 1975, 3-month certificates of deposit thereafter.

South Africa — 3-month time deposits at merchant bank until May 1975. Negotiable certificates of deposit from June 1975.

Spain — maximum legal rate for 3-month deposits.

Sweden — deposits at 6-months' notice.

Switzerland — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month certificates of deposit for amounts above Bv. 250,000 until December 1977. New series as of January 1979, 6-month certificates of deposits for domestic borrowers for amounts above Bv. 1,500,000.

Euro-dollars — prime banks' bid rate for 3-month deposits in London.

Commercial bank lending rates to prime borrowers

Austria — overdraft rate for prime borrowers, including commission.

Australia — approximate overdraft rate for prime borrowers. Rate for prime borrowers usually .25% to .75% below the maximum overdraft rate; rate shown is .5% below.

Belgium — prime overdraft rate.

Brazil — commercial bank legal maximum rate (discount basis) for maturities up to 60 days until August 1977. In addition, compensating balances were required. New series as of September 1977, weighted average investment bank lending rates.

Canada — prime rate.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — overdraft rate for prime borrowers, including a commission of .05% per month on highest debit balance during the month.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime rate.

Ireland — AAA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average rate on loans and discounts of city banks, computed by the Bank of Japan until December 1974. New series as of January 1975, average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Mexico — major bank prime rate, subject to legal maximum. In addition, compensating balances are required.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .333% prior to July 1978, .25% thereafter, per quarter on the total line of credit.

Philippines — maximum legal rate, for unsecured loans exclusive of service fee.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — maximum legal rate for discounting commercial bills plus a commission of 1% per annum. In addition, compensating balances may be required.

Sweden — overdraft rate for prime borrowers, including a fee of 1% from January 1972 to March 1976, .75% from April 1976 on total amount of credit authorized.

Switzerland — overdraft rate for prime borrowers, including commission of .25% per quarter on highest debit balance in quarter.

United Kingdom — unsecured overdraft rate for prime borrowers.

United States — prime rate of Morgan Guaranty Trust Company. In addition, compensating balances are required.

Venezuela — representative rate for prime borrowers until December 1978. New series as of January 1979, similar rate for domestic prime borrowers only.

Euro-dollars — representative average rate for 3-month loans to prime borrowers.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — 20-year government bonds.

Belgium — Belgian National Bank average yield on government bonds maturing in more than five years.

Brazil — 5-year inflation-indexed 8% Treasury Readjustable Obligations (ORTN).

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 5% government bond of 2007 until December 1976. New series as of January 1977, 10% government bonds with maturity of 7 to 8 years.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — Institut National de la Statistique et des Etudes Economiques (INSEE) yield on public and semi-public sector bonds.

Germany — Frankfurter Allgemeine Zeitung (FAZ) 7% public authority bond average until September 1978. New series as of October 1978, FAZ 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average of yields on six outstanding bonds of public-sector entities, new series as of January 1977.

Japan — average yield on outstanding maturities of 6.5% national government bonds until December 1974. New series as of January 1975, secondary market yield for the 6.1% due 1988 national government bond.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest 7% to 7.75% government bonds.

New Zealand — average yield on government bonds maturing after 10 years.

Norway — 5% government bond of 1996.

Philippines — Central Bank 5-year Certificate of Indebtedness, regular issue.

South Africa — 25-year government bonds.

Sweden — 15-year government bonds.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 20-year government stock until December 1975. New series as of January 1976, F.T. Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Domestic corporate bond yields

Australia — long-term secured debentures, indicated by Australian United Corporation.

Belgium — Belgian National Bank average yield on private corporate bonds maturing in more than five years.

Canada — McLeod, Young, Weir Co. Ltd., average yield on ten industrial bonds.

France — INSEE tax-adjusted average yield on outstanding private corporate bonds.

Germany — FAZ 6% industrial bond average until September 1978 New series as of October 1978, Bundesbank average yield on industrial bonds

Italy — average of yields on six outstanding bonds of leading Italian industrial companies; new series as of January 1977.

Japan — average of yields on outstanding Nippon Telegraph & Telephone interest-bearing yen debentures until December 1974. New series as of January 1975, secondary market yield for NTT bond maturing April 1987.

Korea — average of yields on 3-year corporate bonds guaranteed by local banks.

Mexico — 9% Teléfonos de Mexico bond, series AA, of 1990 until December 1976. Average of yields of six outstanding Telefonos de Mexico bonds from January 1977.

Netherlands — CBS average yield on three 6% to 6.5% corporate bonds.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984.

Spain — average yield for a selected group of electricity companies.

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of five leading Swiss companies.

United Kingdom — F.T. (Financial Times) Actuaries 20-year debentures and loans.

United States — Salomon Brothers index of new issue yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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